

- 1 -

piece 1, NC\_000913, ppiB\_cysS+, config: linear, direction: +, begin: 553631, end: 553853

\* \* 553640 \* \* 553650 \* \* 553660 \* \* 553670 \* \* 553680 \* \* 553690 \* \* 553700 \* \* 553710  
 5' a t c g c g t g a t t t g g t g t g g a a a g t a a c c a t t t t g c a t c c t g t t c c g t t g a t t t g g t g c a c c a a c g t t c c g g t g c a t a t 3'  
 - ile - ala - val - ile - gly - val - glu - ser - asn - his - phe - cys - ile - leu - phe - arg - leu - ile - gly - ala - ser - thr - gln - phe - gly - ser - tyr -  
 - ser - pro - - fMet - val - trp - lys - val - thr - ile - phe - ala - ser - cys - ser - val - - fMet - val - leu - gln - pro - ser - ser - gly - his - ile -  
 - arg - arg - asp - trp - cys - gly - lys - - - - - fMet - his - pro - val - pro - phe - asp - trp - cys - phe - asn - pro - val - arg - val - ile - tyr -  
 ... ] NC\_000913.ppiB

```
sd-(5)-in 553782 Gap 5.4 bits  
sd-dir 553782 ppi.CYS8 total 6.6 bits  
{ p35-(26)-p10 553788 Gap 3.7 bits  
| p35-p10 553788 total 4.6 bits
```

5' \* \*553800 \* \*553810 \* \*553820 \* \*553830 \* \*553840 \* \*553850 3'

a g c g c a a c t c a a t t a c c a c a c a t g t c a a c g g a a t t c t t c g a t g c t a a a a a t t c t t c a a t a c

- thr - gln - leu - asn - tyr - pro - his - met - ser - lys - arg - asn - leu - arg - cys - - - - - - - - -

- arg - asn - ser - ile - thr - his - thr - cys - leu - asn - gly - ile - phe - asp - ala - lys - asn - leu - gln - tyr -

The diagram illustrates the transcription start sites for the *ppiB* and *cysS* genes. The *ppiB* gene is transcribed from left to right, starting at a red arrowhead. The *cysS* gene is transcribed from right to left, starting at a blue arrowhead. Two sigma factors are shown: σ<sub>70</sub> (red dashed box) and σ<sub>D</sub> (blue dashed box). The DNA sequence is shown as a green line with base pairs labeled A, T, C, G. Promoter elements include the *P<sub>ppiB</sub>* promoter (green box), the *P<sub>cysS</sub>* promoter (blue box), and the *SD* sequence (light blue box). The amino acid sequence of the PPIB protein is shown in pink at the bottom.

{ } sd-(9)-ir 553834 Gap 2.3 bits  
sd-ir 553834 ppiB\_cysS total 10.1 bits